Name: _____

Chapter 4 Practice Test

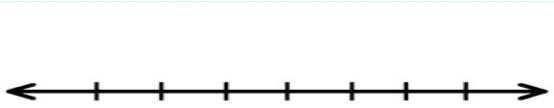
Part One: Graphing Inequalities: Graph each inequality on the number line provided. Be sure to label all tickmarks.

1. $a < -3$

2. $b \geq 0$

3. $c > 4$

4. $-2 \geq d$



Part Two: Determining if a Number is a Solution of an Inequality

5. Is -4 a solution of the inequality $2x > -8$? Explain your reasoning using complete sentences and algebraic terms. Be sure to echo the prompt.

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6. Is 15 a solution of the inequality $\frac{y}{-3} \geq 2$? Explain your reasoning using complete sentences and algebraic terms. Be sure to echo the prompt.

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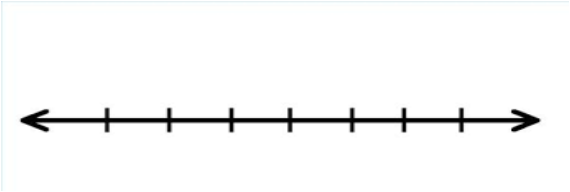
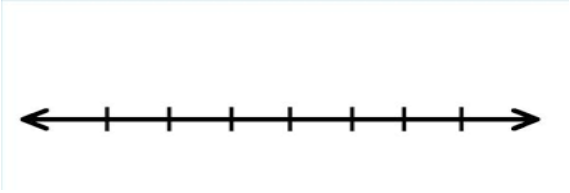
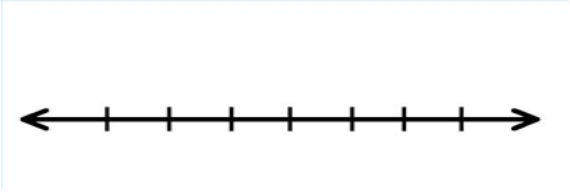
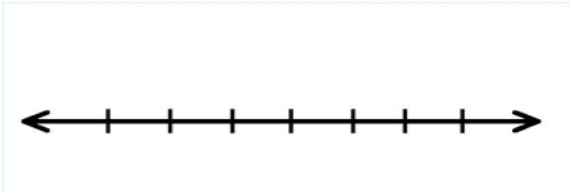
Part Three: Solving Inequalities: Please solve each inequality. Write your answer as an inequality and graph your solution on the number line. Be sure to label all tickmarks.

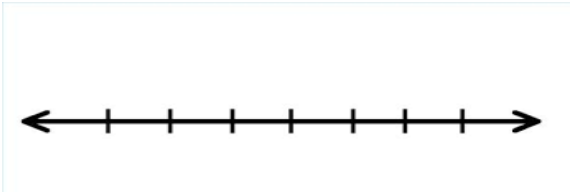
7. $x - 1 > 4$	
8. $5z < -50$	
9. $-3y + 7 \geq -14$	
10. $9h + 3 - 10 \leq 4h + 7$	
11. $\frac{3g}{4} > -6$	

Part Four: Compound Inequalities

12. Graph: $-6 \leq y < -2$

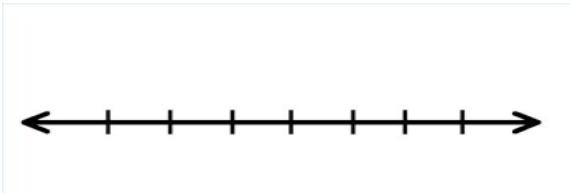


13. Graph: $c < -3$ OR $c \geq 0$



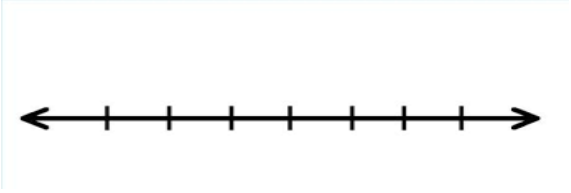
14. Solve, then graph:

$x + 2 < -9$ OR $2x > -20$



15. Solve, then graph:

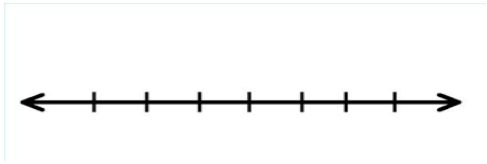
$-11 < 2x + 5 \leq 1$



Part Five: Translating English into Inequalities

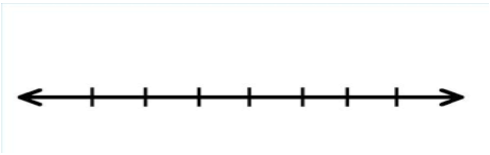
16. The difference of x and four is at most negative five.
Write and solve an inequality:

Graph (Label all tickmarks):



17. The quotient of h and negative three is no more than five.
Write and solve an inequality:

Graph (Label all tickmarks):



Part Six: #18: Inequality Word Problem: The length of a rectangular pool is three more than thrice (three times) the width.

a. Let w = width. Write an expression for the length of the pool in terms of w.

b. Draw the rectangular pool and label the length and width using your expressions.

c. The perimeter of the pool can be no more than eighty-two feet. Write and solve an inequality to represent this situation.

d. What are the maximum length and width for the pool? Don't forget units!